Case Study

GIT coolant pipe made from Durethan® DP 2-2224/30

Figure 1 GIT coolant pipe

Material:	Durethan® DP 2-2224/30
Injection molder:	MECAPLAST Group
OEM:	Toyota
Industry:	Automotive

MECAPLAST Group was founded in 1955 in the heart of Monaco. By its 50th anniversary the company, which started off with five employees, comprised a workforce of 7,000 in 43 sites across 18 countries. The MECAPLAST Group's main area of activity is the automotive industry. It designs, develops and produces innovative parts and assemblies made from plastic, metal and textiles.

MECAPLAST Group uses technologies appropriate to the product families – for example the GIT process for plastics. GIT stands for gas injection technology. The principle of GIT is to use an inert gas (usually N_2) to displace the plastic core from thick-walled areas during the injection process. GIT helps with the manufacture of molded parts that would be extremely difficult or even impossible to produce using the standard injection molding process. More recent applications use the opportunities offered by GIT to manufacture all types of complex molded media pipes (see Figure 1).

The MECAPLAST Group has chosen to manufacture its coolant pipe for Toyota from the LANXESS plastic Durethan® DP 2-2224/30. The material is a mineral- and glass-fiber-reinforced PA 66 grade developed by LANXESS specifically for GIT processes.

MECAPLAST Group chose the product for its excellent and consistent processability and for the impressive surface quality (both internally and externally). Durethan DP2-2224/30 also exhibits an exceptional hydrolysis stability which is a crucial property for coolant pipes.